FIG. 1

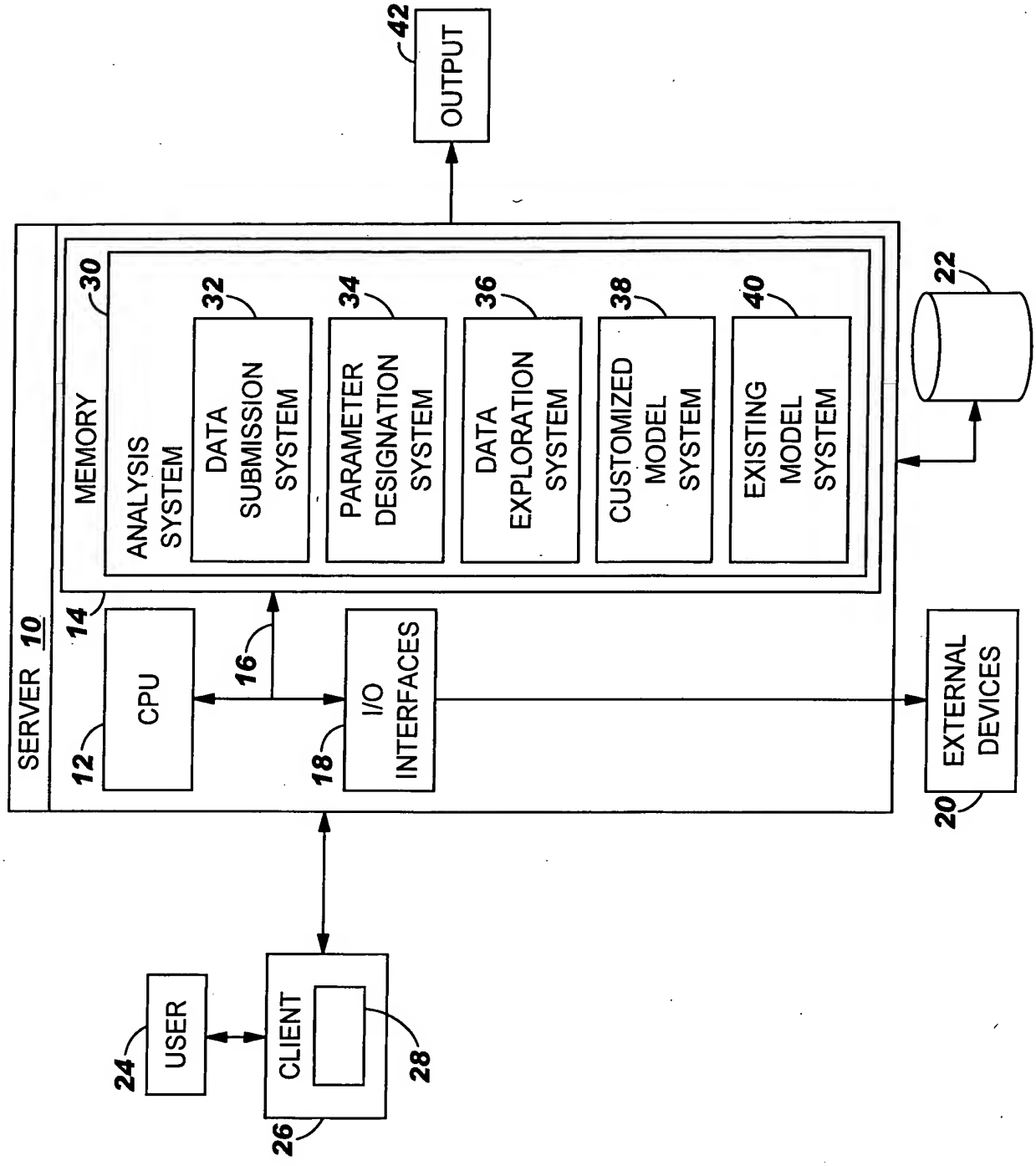

42
OUTPUT
SERVER 10
MEMORY
30
ANALYSIS SYSTEM
32
DATA SUBMISSION SYSTEM
34
PARAMETER DESIGNATION SYSTEM
36
DATA EXPLORATION SYSTEM
38
CUSTOMIZED MODEL SYSTEM
40
EXISTING MODEL SYSTEM
22
14
CPU
12
16
I/O INTERFACES
18
EXTERNAL DEVICES
20
USER
24
CLIENT
26
28

FIG. 2

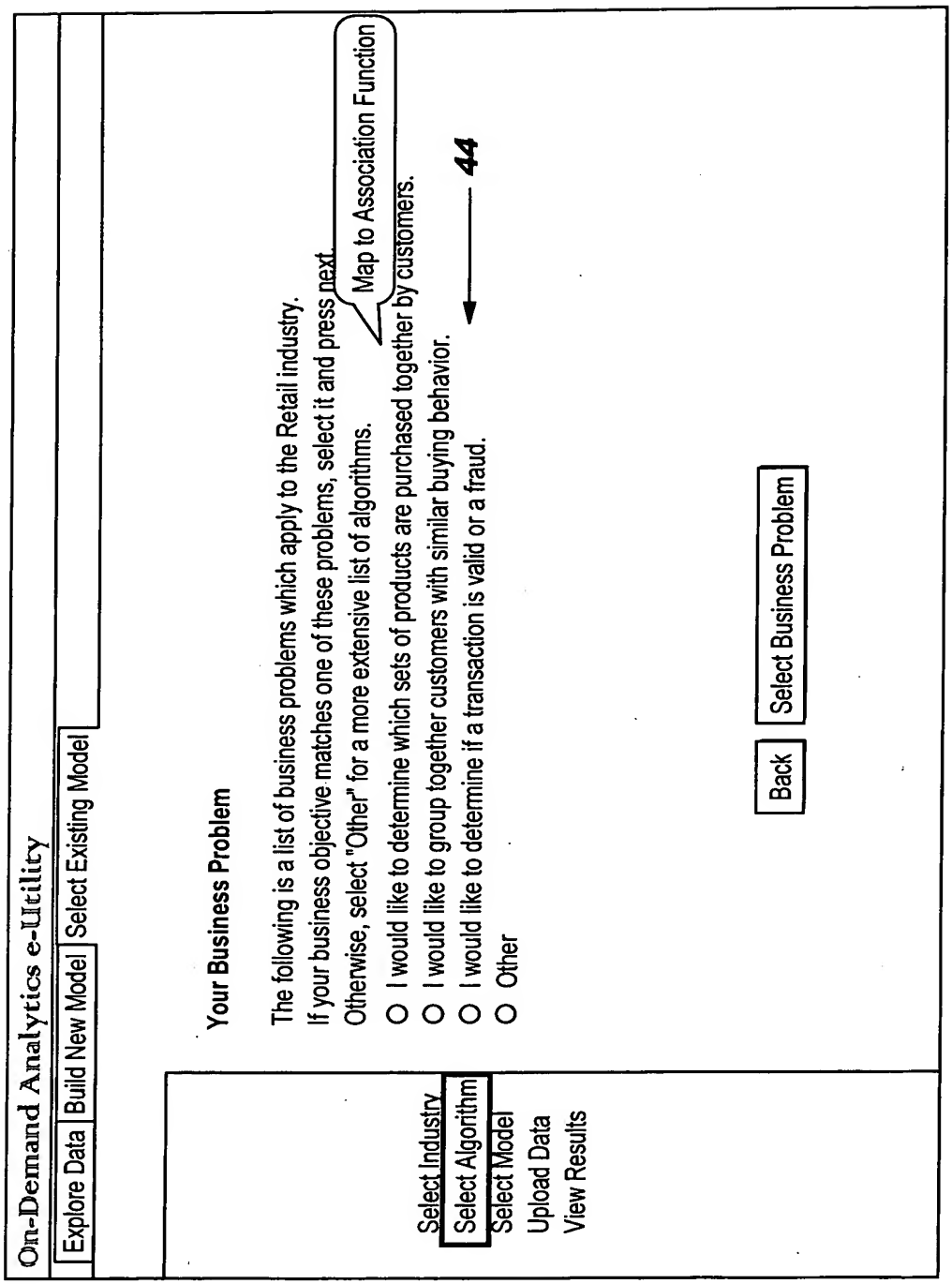

42
On-Demand Analytics e-Utility
Explore Data
Build New Model
Select Existing Model
Select Industry
Select Algorithm
Select Model
Upload Data
View Results
Your Business Problem
The following is a list of business problems which apply to the Retail industry.
If your business objective matches one of these problems, select it and press next.
Otherwise, select "Other" for a more extensive list of algorithms.
Map to Association Function
I would like to determine which sets of products are purchased together by customers.
I would like to group together customers with similar buying behavior.
I would like to determine if a transaction is valid or a fraud.
Other
44
Back
Select Business Problem

FIG. 3

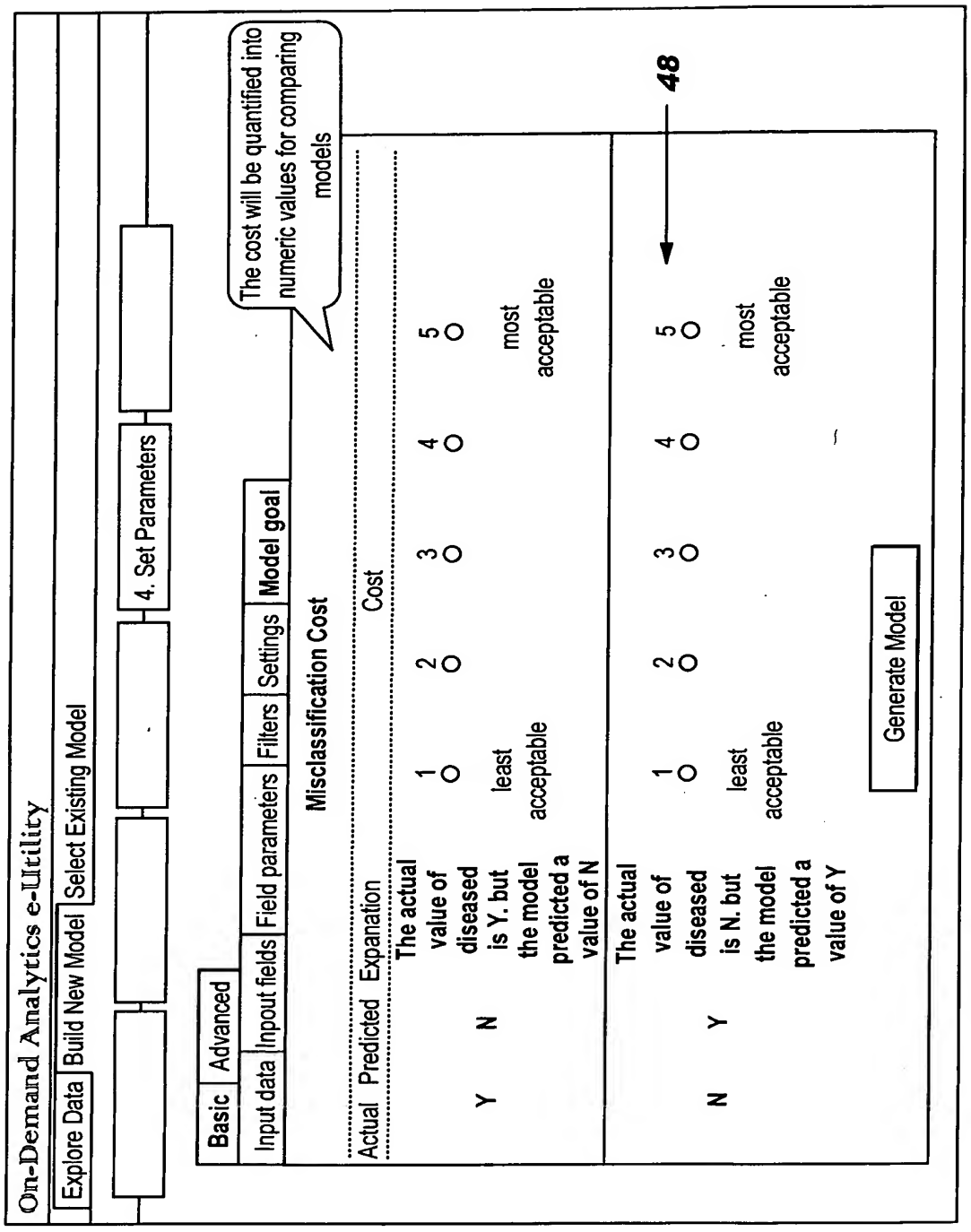

46
On-Demand Analytics e-Utility
Explore Data
Build New Model
Select Existing Model
4. Set Parameters
Basic
Advanced
Input data
Inpout fields
Field parameters
Filters
Settings
Model goal
The cost will be quantified into numeric values for comparing models
Misclassification Cost
Actual
Predicted
Expanation
Cost
Y
N
The actual value of diseased is Y. but the model predicted a value of N
1
2
3
4
5
least acceptable
most acceptable
N
Y
The actual value of diseased is N. but the model predicted a value of Y
Generate Model
48

FIG. 4

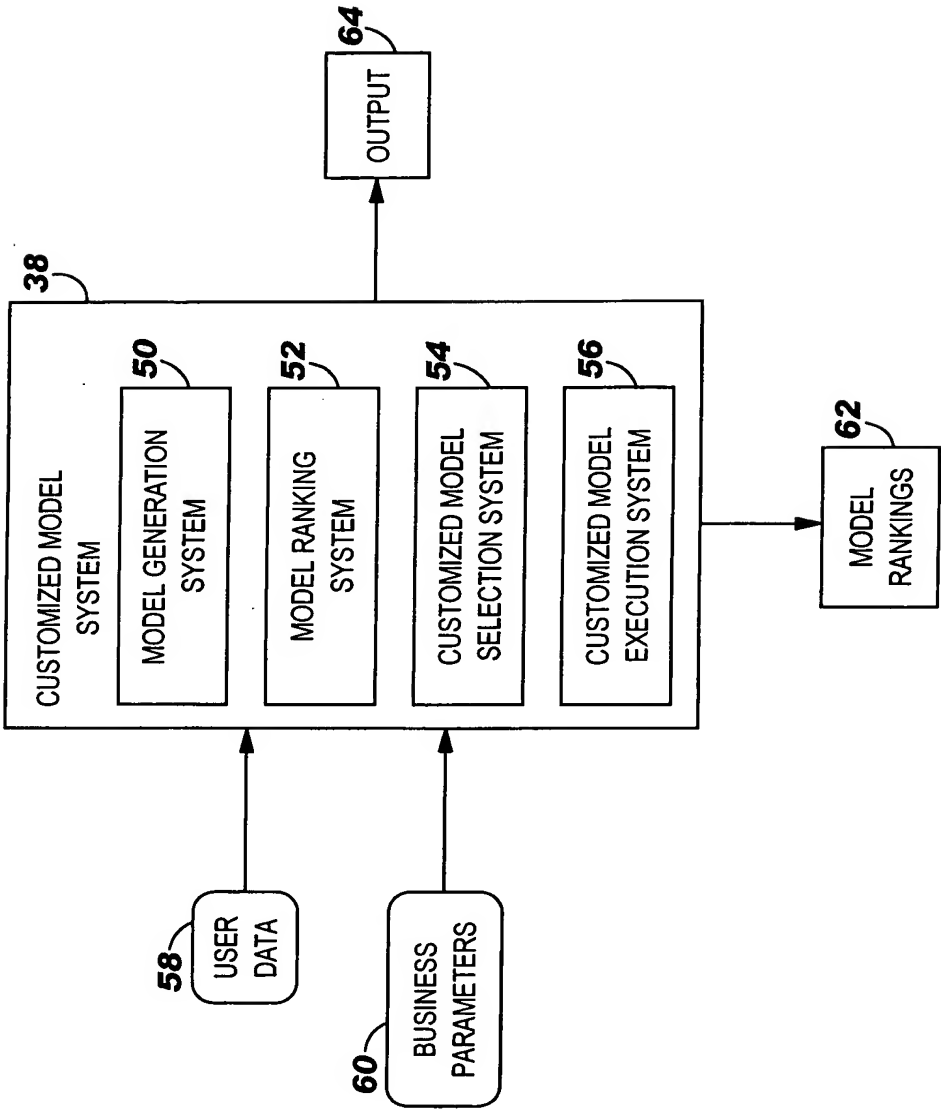

64
OUTPUT
38
CUSTOMIZED MODEL SYSTEM
50
MODEL GENERATION SYSTEM
52
MODEL RANKING SYSTEM
54
CUSTOMIZED MODEL SELECTION SYSTEM
56
CUSTOMIZED MODEL EXECUTION SYSTEM
62
MODEL RANKINGS
58
USER DATA
60
BUSINESS PARAMETERS

FIG. 5

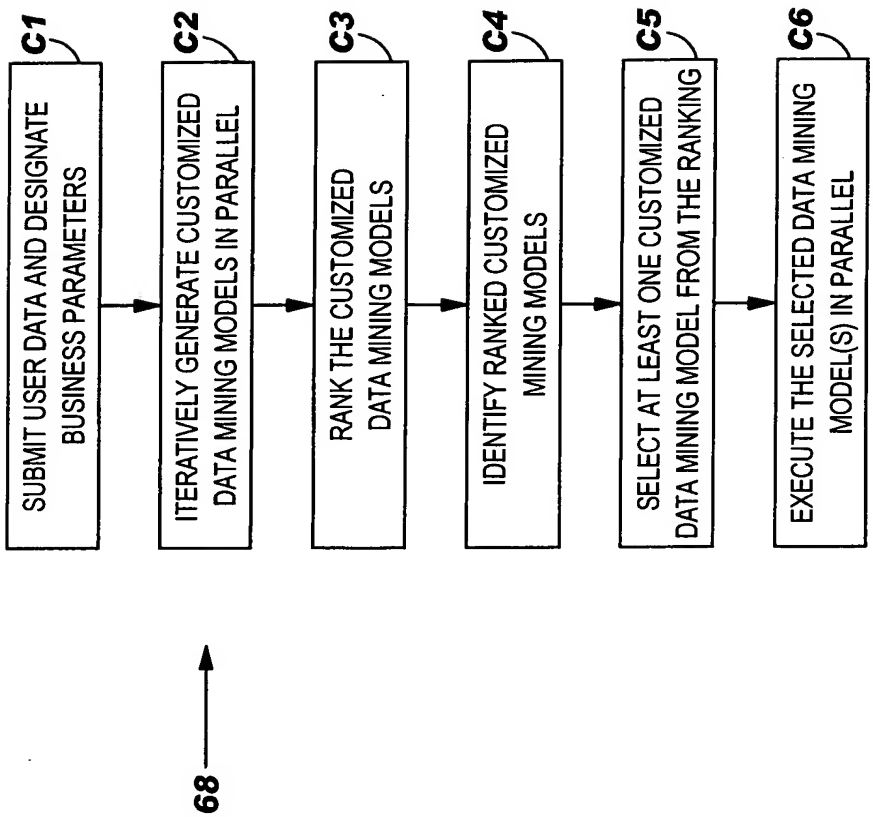

C1
SUBMIT USER DATA AND DESIGNATE BUSINESS PARAMETERS
C2
ITERATIVELY GENERATE CUSTOMIZED DATA MINING MODELS IN PARALLEL
C3
RANK THE CUSTOMIZED DATA MINING MODELS
C4
IDENTIFY RANKED CUSTOMIZED MINING MODELS
C5
SELECT AT LEAST ONE CUSTOMIZED DATA MINING MODEL FROM THE RANKING
C6
EXECUTE THE SELECTED DATA MINING MODEL(S) IN PARALLEL
68

FIG. 6

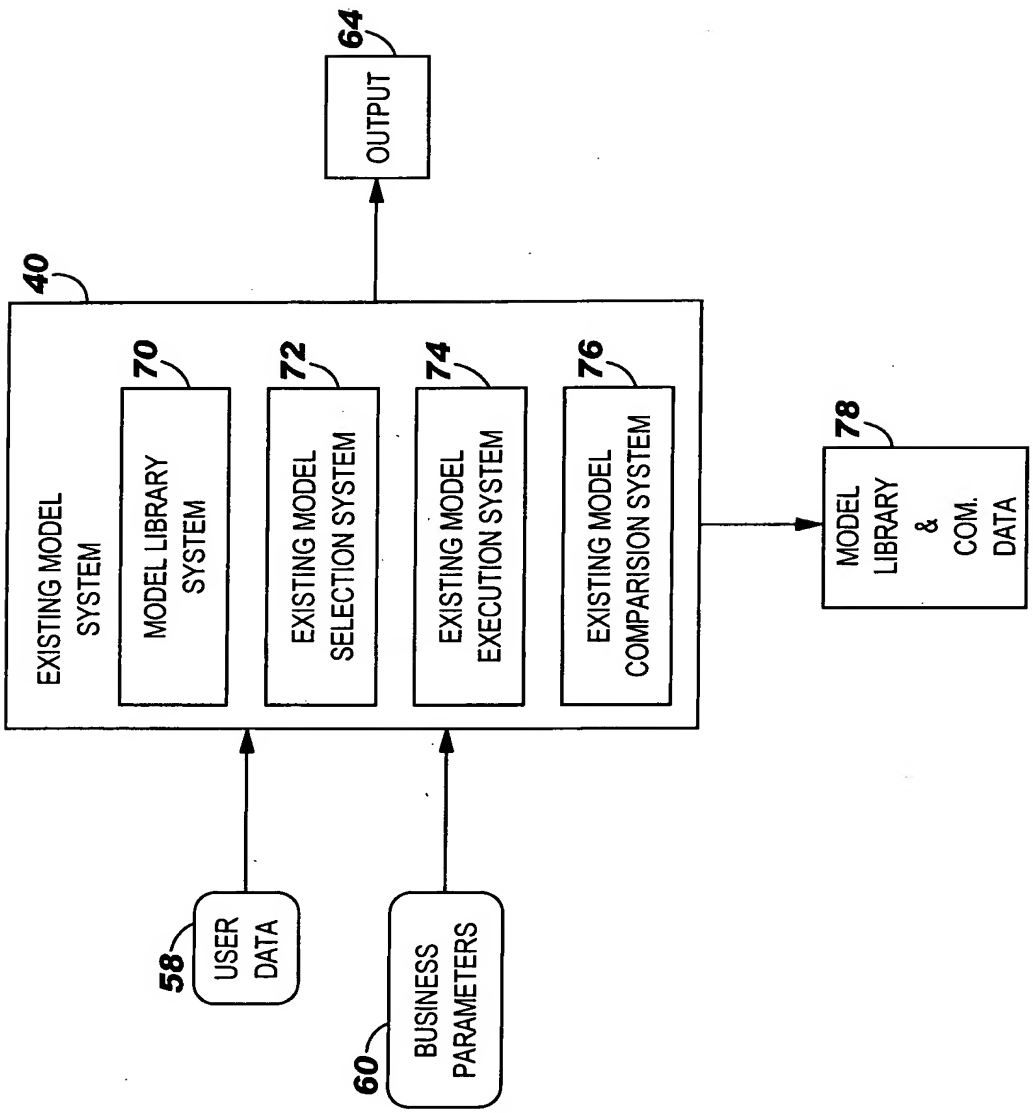
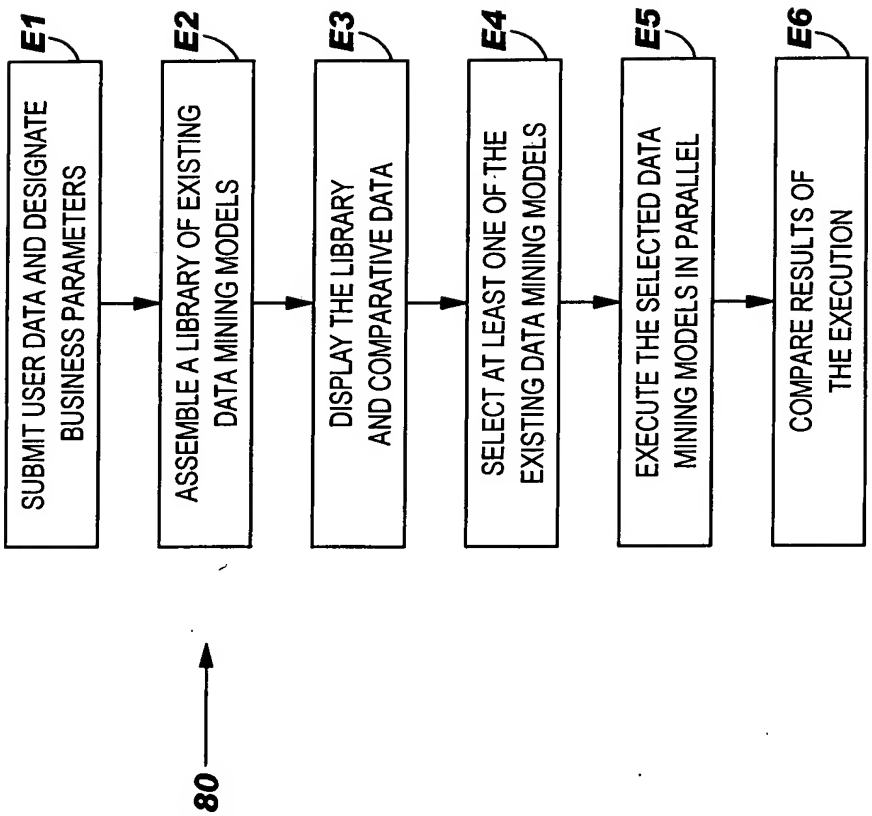

64
OUTPUT
40
EXISTING MODEL SYSTEM
70
MODEL LIBRARY SYSTEM
72
EXISTING MODEL SELECTION SYSTEM
74
EXISTING MODEL EXECUTION SYSTEM
76
EXISTING MODEL COMPARISION SYSTEM
78
MODEL LIBRARY & COM. DATA
58
USER DATA
60
BUSINESS PARAMETERS

FIG. 7


E1
SUBMIT USER DATA AND DESIGNATE BUSINESS PARAMETERS
E2
ASSEMBLE A LIBRARY OF EXISTING DATA MINING MODELS
E3
DISPLAY THE LIBRARY AND COMPARATIVE DATA
E4
SELECT AT LEAST ONE OF THE EXISTING DATA MINING MODELS
E5
EXECUTE THE SELECTED DATA MINING MODELS IN PARALLEL
E6
COMPARE RESULTS OF THE EXECUTION
80